

Astronomy is the science of what we observe in the sky.¹ Cosmologies are ways in which humans have understood the creation, evolution, and structure of the universe, and our place in the universe, throughout history and across cultures.²

Science Seminar in Astronomy & Cosmologies combines science and humanities. From star stories to modern astrophysics, we will explore cosmological concepts from perspectives such as science, literature, mythology, philosophy, and history.

LEARNING IN COMMUNITY is a central aspect of this program. We will work in teams. Students will write primarily for peers, not just for faculty. The feedback and support that we provide each other will enrich the content and dynamic of our learning. By joining this program, everyone commits to participating in our learning community. We all take joint responsibility for making seminars rewarding.

While we will usually meet in person only once per week, our 5-part Online Seminar comprises a significant weekly experience of Learning Through Writing Together, following Don Finkel's philosophy. Through these intellectual conversations, we aim to deepen our understanding and wisdom together, and to hone our communication skills.

Online Seminar: 1: Inquiry – 2: Response – 3: Reflection – 4: Essay – 5: Response

OUR WEEKLY ACTIVITIES

Weekend: Reading, reflection, PIQs. Alternating groups post ***short essays**. Finish your reading and take notes. ***Meet** your seminar team and discuss the reading. Choose your best Points, Insights, and Questions. ***Post** your PIQs online. This prepares us all for great seminar discussions.

- Points = key points of the author – in your words
- Insights = “aha moments” and answers to questions that you discover together
- Questions = significant outstanding questions to discuss in seminar, or questions of fact for your faculty to address (that you couldn't find out in your pre-seminar discussion)
- Each teammate contributes at least one Point, one Insight, and one Question. A team of 3 will post 3 of each, for a total of 9. ***Include** a page number from your text for each PIQ.

Monday 6-9 pm in Sem2 A2109: Seminar on Big Bang by Singh (Astronomy) or New Patterns in the Sky by Staal (Cosmologies). ***Bring** your text and notebook.

Tuesday (no class): Think about ideas from seminar and reading. Draft an Inquiry (alternate weeks).

Wednesday (Online Seminar 1): You will **write an inquiry-based essay** on any of our shared readings and learning, roughly every other week. Make connections! Your writing may be analytical, exploratory, or creative. It must be carefully proofread. See the writing guidelines. Plan to write on Tuesday, then polish and post your Inquiry on Wednesday.

¹ Astrology is a belief system that involves forecasting futures based on positions of objects in the sky.

² Cosmetology is an art or science of making people pretty. Sorry, we won't be teaching those, this quarter.

Thursday (no class): **Read peers' Inquiries.** If you didn't post an Inquiry this week, then it's your turn to Respond to your classmates' Inquiries. Your mission: respond to at least 6 each time – 3 from Science Seminar and 3 from Astronomy and Cosmologies (because 1. you are earning more credit from this activity, 2. Astro & Cosmo students need your feedback too, and 3. you could learn some cool stuff).

Thursday (Online Seminar 2):

- **Respond to Inquiries by noon:** Write a thoughtful letter, as described in Finkel's "[Learning Through Writing Together](#)" and in Olson's "[Responding to Another's Writing](#)", to at least 2 Sci Sem and 6 Astro & Cosmo Inquiries.

Weekends are for polishing your writing, R&R, reading and thinking, and preparing for the coming week.

- Friday (Online Seminar 3): If you wrote an Inquiry this week, first **Reflect** on Responses that peers posted. You may choose to **Reply** to each Respondent, or you may choose to **write a Summary Reflection** discussing each classmate's response in turn. Your thoughtful, specific reflections will motivate the next step of your writing:
- **Post your Weekly Reflection.** Everyone - look back on the week and your learning, individually and in community. Consider high points. Make connections. Ask outstanding questions.
- Saturday (Online Seminar 4): **Polish your Inquiry into an Essay.** You may find that the structure or meaning of your writing changes significantly. Sleep on it, and proofread carefully, as always.
- Everyone finish Monday's seminar reading. Take notes.
- Sunday: **Meet your pre-seminar team**, discuss the seminar reading, and **post PIQs** together by Monday noon at the very latest – *your seminar facilitators need plenty of time to read them before class.*
- Monday daytime (Online Seminar 5): read and **Respond to Essays** by peers, if you didn't write an essay. Discuss them in person in the coming week.
- **Rest, play, eat, ... take care of yourself.** Your learning experience will be most rewarding when you are healthy. Please talk with your faculty if any concerns arise.

ESSAYS are inquiry-based, as described in Finkel's *Learning Through Writing Together*. Your writing may be creative, exploratory, or analytical. You may tell a story, investigate a mystery of nature, write a poem, or write something else relevant to our work together. Inquiries and essays should be under 300 words, to start. (That's 50 words more than permitted by Olympian editorials.) When your writing is free of errors (e.g. in spelling, punctuation, word use, etc.), clean and tight (well-structured, with no extra words), and lovely, you will get a Zita-pass. This allows 50 additional words in your next essay. Bonus!